Ordering number: EN 3265

Monolithic Linear IC



No.3265

LA6532M

4-Channel BTL-Use Driver

The LA6532M is a 4-channel BTL-use driver designed for compact disc pickup actuation.

Functions and Features

- BTL-use 4-channel power amp
- I_O max 700mA×2400mA×2 (with voltage limiter)
- With muting function

Maximum Ratings at Ta = 25°C

				unit
Maximum Supply Voltage	V_{CC} max		9	V
Allowable Power Dissipation	Pd max		0.9	W
Differential Input Voltage	V_{ID}		8	V
Common-Mode Input Voltage	V_{ICM}		8	V
Maximum Input Voltage	V_{INB} max	Buffer amp	8	V
Muting Pin Voltage	V_{Mute}		8	V
Operating Temperature	Topr		−20 to +75	°C
Storage Temperature	Tstg		−55 to +150	°C

Operating Conditions at Ta = 25°C

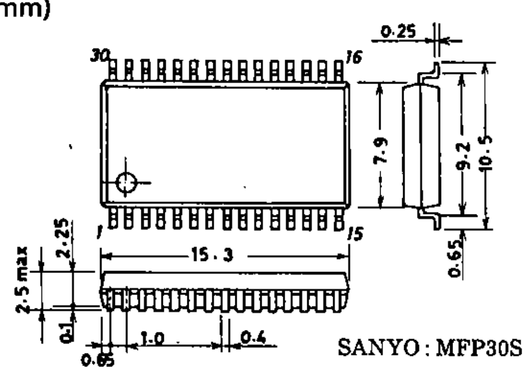
				unit
Maximum Supply Voltage	V_{CC}		5	V
Load Resistance	R_L	Pins 3-4,12-13,18-19,27-28	8	Ω

Operating Characteristics at Ta = 25°C, V_{CC} = 5.0V

			min	typ	max	unit
No-Loaded Current Dissipation 1	$I_{CC}1$	Note 1	25	40	60	mA
No-Loaded Current Dissipation 2	$I_{CC}2$	Note 2	5	9	20	mA
No-Loaded Current Dissipation 3	$I_{CC}3$	Note 3	25	40	60	mA
No-Loaded Current Dissipation 4	$I_{CC}4$	Note 4	5	9	20	mA
Output Offset Voltage 1	$V_{OF}1$	Note 5 Amp 1-2,7-8	−50		50	mV
Output Offset Voltage 2	$V_{OF}2$	Note 5 Amp 3-4,5-6	−30		30	mV

Continued on next page.

Package Dimensions 3073A-M30IC
(unit : mm)



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			min	typ	max	unit
Buffer 1 Input-Output Voltage Difference	$V_{BIO}1$	Buffer amp 1	−30		30	mV
Buffer 2 Input-Output Voltage Difference	$V_{BIO}2$	Buffer amp 2	0.5	0.6	0.8	V
Amp 2 Input-Output Voltage Difference	$V_{IO}2$	Amp 2	0.5	0.6	0.8	V
Amp 7 Input-Output Voltage Difference	$V_{IO}7$	Amp 7	0.5	0.6	0.8	V
Input Bias Current	I_B	Note 6		100	500	nA
Buffer Input Voltage Range	V_{BICM}	Buffer amp	1.5	$V_{CC}-1.5$		V
Common-Mode Input Voltage Range	V_{ICM}		1.0	$V_{CC}-1.5$		V
Output Source Voltage	V_O1	$R_L=8.0\Omega$ 700mA amp (Note 7)	3.4	3.6		V
Output Sink Voltage	V_O2	$R_L=8.0\Omega$ 700mA amp (Note 8)		1.0	1.4	V
Output Source Voltage	V_O3	$R_L=8.0\Omega$ 400mA amp (Note 7)	2.8	3.4		V
Output Sink Voltage	V_O4	$R_L=8.0\Omega$ 400mA amp (Note 8)		1.6	2.2	V
Closed-Circuit Voltage Gain	V_G			6.0		dB
Output Limiting Voltage	V_{OL}	Amp 3, amp 6		5.0		V
Muting Pin OFF-State Voltage	V_{Mute}			2.2		V
Muting Pin OFF-State Current	I_{Mute}			80		A

Note 1 Muting OFF. Buffer 22kΩ across V_{IN-} and V_O. V_{IN+} pin grounded

Note 2 Muting ON. Buffer 22kΩ across V_{IN-} and V_O. V_{IN+} pin grounded

Note 3 Muting OFF. Buffer 22kΩ across V_{IN-} and V_O. V_{IN+} pin connected to $1/2V_{CC}$

Note 4 Muting ON. Buffer 22kΩ across V_{IN-} and V_O. V_{IN+} pin connected to $1/2V_{CC}$

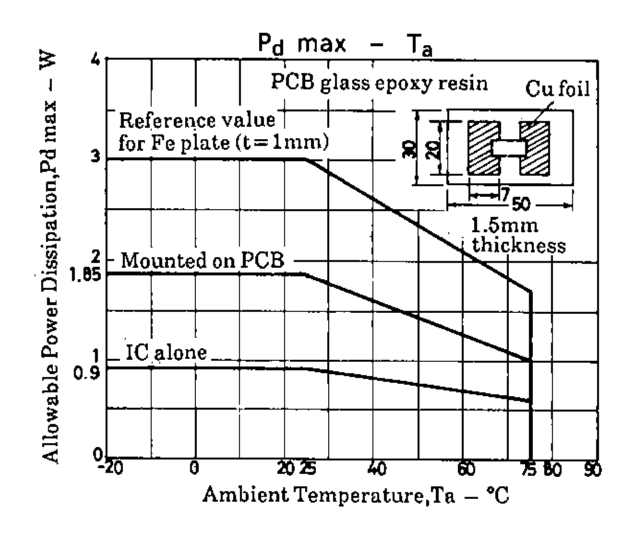
Note 5 For bridge amp, represents the difference between outputs.

Note 6 All V_{IN} connected to $1/2V_{CC}$. 100kΩ connected to the input. Measure the voltage difference. V_{IN} and V_O connected through 100kΩ. Measure the voltage difference between pins.

Note 7 Voltage (source) relative to GND when 8Ω load is connected across outputs of bridge amp

Note 8 Voltage (sink) relative to GND when 8Ω load is connected across outputs of bridge amp

※ : Be carefull in handling the LA6532M, because dielectric breakdown is liable to occur.



Equivalent Circuit Block Diagram

